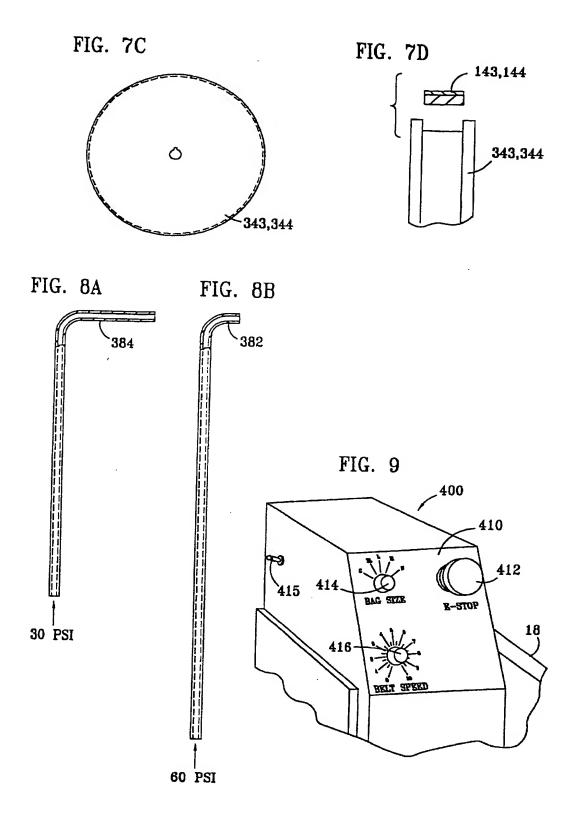
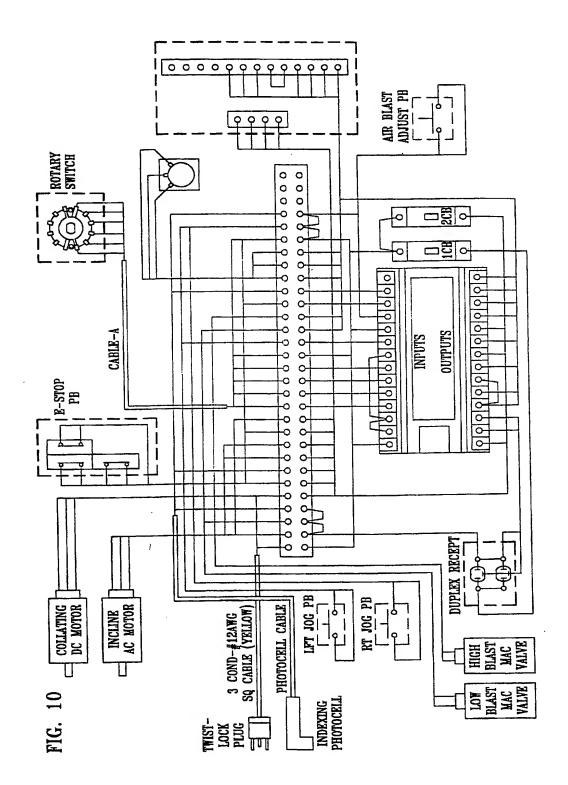


FIG.5A





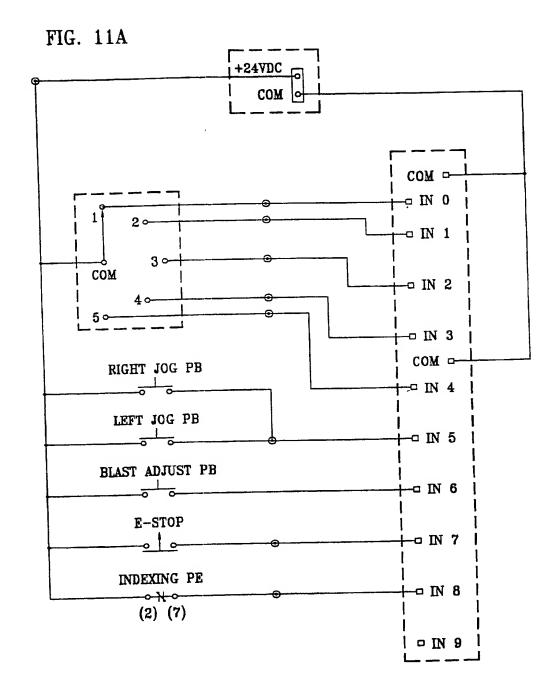
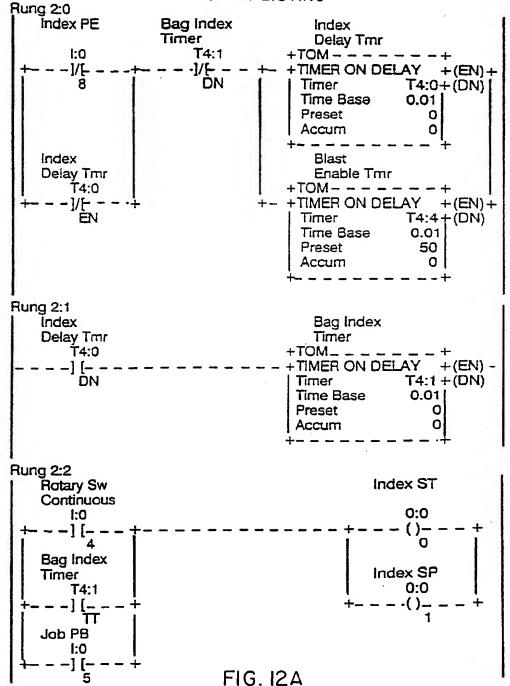
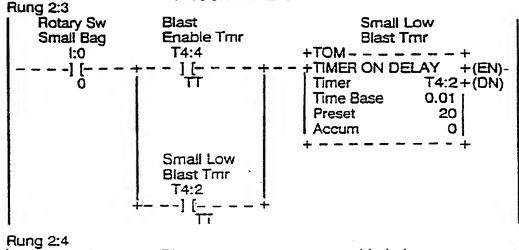
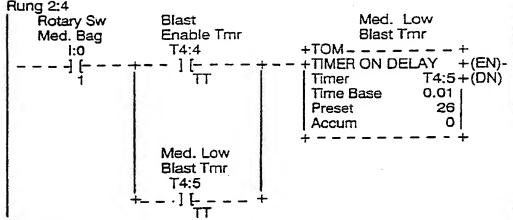


FIG. 11B 120V, 1PH, 60Hz 1CB E-STOP 2CB L2 M1 M2 L1 L2 **M**1 VAC N oi vac/vdc i ∘5 (SP) OUT 0 -∘6 (C) YAC/VDC 07 (ST) OUT 1 -~8 (E1) i LOW VAC/VDC ~9 (E2) ! AIR BLAST OUT 2 -YAC/VDC 010 OUT 3 □-HIGH VAC/VDC **~11** AIR BLAST OUT 4 □-**012** OUT 5 ---**~13** SPEED POT







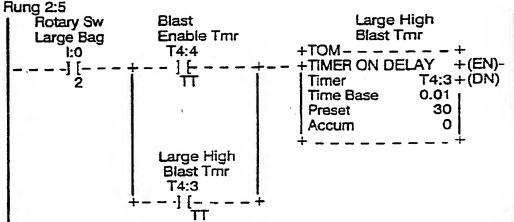
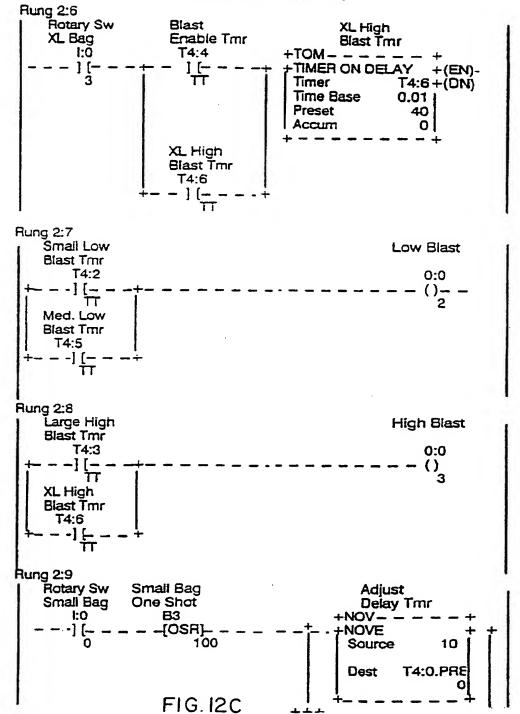
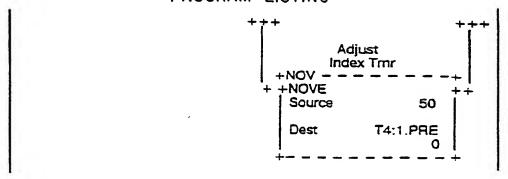
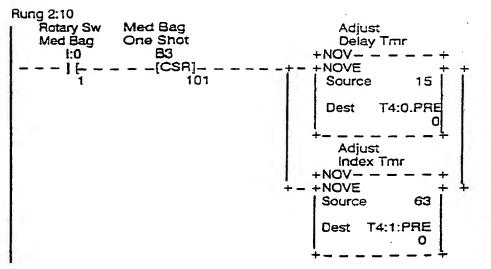
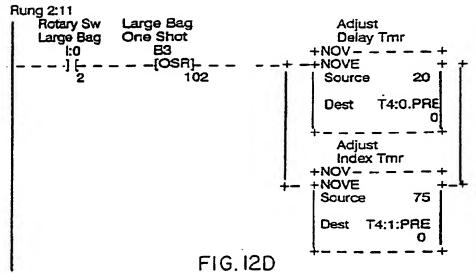


FIG. 12B

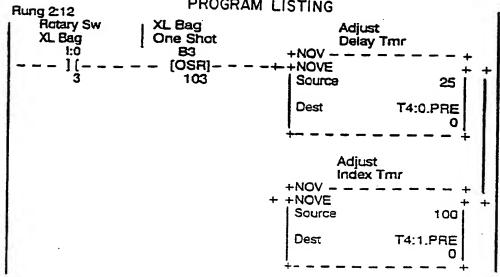


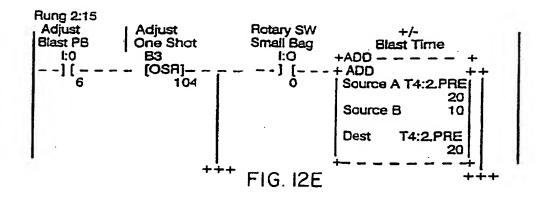


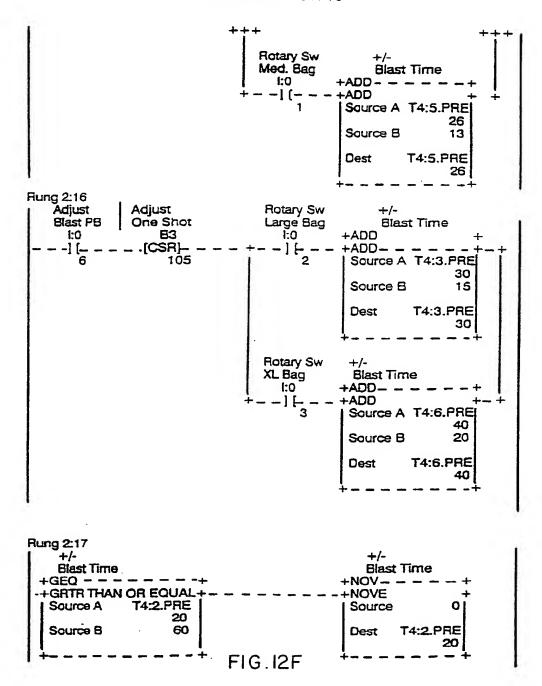


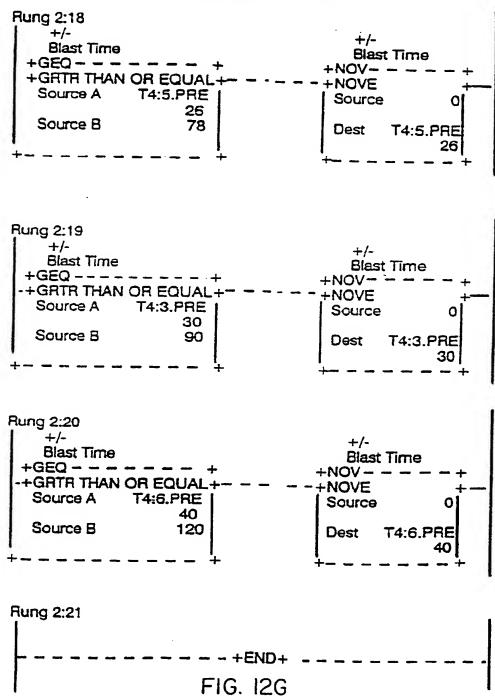


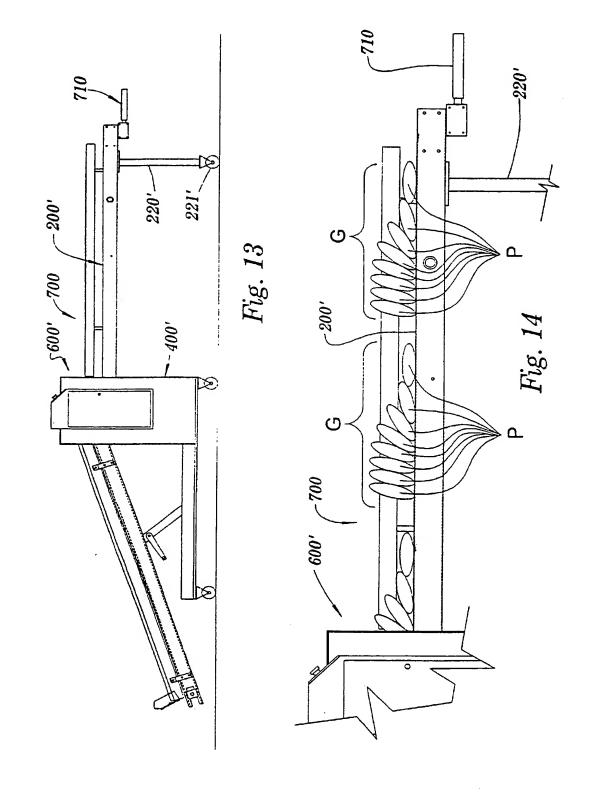


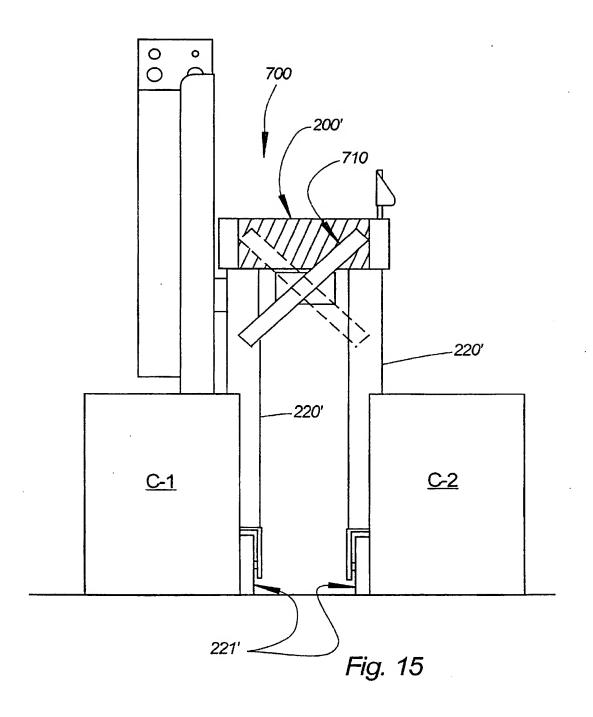












```
RUNG 2:0 - START/STOP CONTROL.
RUNG 2:0 START PB E-STOP
                                               CONV
              I:0
      I:O
                                               В3
  +---] [--+--]/[--
 111 | CONV RUN
                 10
  B3
 +--][--+
RUNG 2:1 AND 2:2 - INDEXING CONTROLS.
RUNG 2:1
       BAG INDEX CONVIRUN
  INDEX
                                           INDEX
  PHOTOCELL TIMER
                                           DELAY TMR
  I:0 T4:1
                                     +TON - - - - +
+TIMER ON DELAY + -(EN)-1
                                     ITIMER T4:0 (DN)
                                     | TIME BASE 0.01 |
| PRESET 5 |
| ACCUM 0 |
1,...
 INDEX
 DELAY TMR
 T4:0
 +--][--+
   EN
RUNG 2:2
 INDEX
                                          BAG INDEX
DELAY TMR
                                          TIMER
 T4:0
                                     +TON - - - +
   - -] [-
                                     +TIMER ON DELAY + -(EN)-
      DN
                                     TIMER T4:1 +-(DN) |
                                     TIME BASE 0.01
RUNGS 2:3 THRU 2:5-AIR BLAST TIMER CONTROLS.
                                     PRESET 25
RUNG 2:3
                                     ACCUM 0 +
    ROTARY SW
                INDEX
                                          SMALL/MED.
    SMALL BAG
                DELAY TMR
                                         BLAST TMR
                T4:0
    I:O
                                    +TON - - - +
     --][--+-+--][-
                                    +TIMER ON DELAY +-(EN)-
     8 1 1 TT
                                    ROTARY SW | SMALL/MED. |
MED.BAG | BLAST TMR |
                                   TIME BASE 0.01 PRESET 20 PACCUM 0
 1 I:0 1 T4:2
                                    + - - -
 +--][--+ +--][--+
        7
```

FIG.16A

```
RUNGS 2:4
   ROTARY SW
               INDEX
                                                   LARGE BAG
   LARGE BAG
                DELAY TMR
                                                   BLAST TMR
                √ T4:0
     I:O
                                            + TON - - - - - +
                                             TIMER ON DELAY + -(EN)
TIMER T4:3+ -(DN)
TIME BASE 0.01
        6
                                            PRESET 0
                                            i ACCUM
                                                          0 (
               LARGE BAG
               BLAST TMP.
                  T4:3
RUNG 2:5
                   . 11
  ROTARY SW
               INDEX
                                                   XL BAG
  XL BAG
               DELAY TMF
                                                   BLAST TMR
     I:O
                T4:0
                                            + TON - - - - +
                                            + TIMER ON DELAY + -(EN)-
                                            PRESET 0
                                            I ACCUM
                                                          0 t
               XL BAG
               BLAST TMR
                  T4:4
                -][--
RUNGS 2:6 THRU 2:9-INDEX DELAY AND BAG INDEX TIMER ADJUSTMENT CONTROLS.
RUNG 2:6
  ROTARY SW | SMALL BAG
SMALL BAG | ONE SHOT
                                                  ADJ INDEX
                                                  DELAY TMR
     I:O
                    B3
                                           + MOV - - - - +
           - - - (OSR)
                                          - + MOVE
                    100
                                           SOURCE
                                           DEST T4:0.PRE I
                                               5 1
                                                  ADJ BAG
                                                 INDEX TMR
                                           + MOV - - - - +
                                        +-+ MOVE
                                            SOURCE
                                                       25 |
                                             DEST T4:1.PRE I
                                                         25!
                          FIG. 16B
```

```
RUNGS 2:6 THRU 2:9-INDEX DELAY AND BAG INDEX TIMER ADJUSTMENT CONTROLS.
 RUNG 2:7
  ROTARY SW
             MED.BAG
                                                 ADJ INDEX
  MED. BAG
             ONE SHOT
                                                 DELAY TMR
     1:0
                    B3
                                           + MOV -
              -- [OSR] - -
                                         - + MOVE
                    101
                                         I SOURCE
                                                    T4:0.PRE !
                                           DEST
                                                 ADJ BAG
                                                 INDEX TMR
                                          + MOV
                                         -+ MOVE - - - -
                                           SOURCE 50 I
                                           DEST T4:1.PRE
RUNGS 2:6 THRU 2:9-INDEX DELAY AND EAG INDEX TIMER ADJUSTMENT CONTROLS.
RUNG 2:8
 ROTARY SW | LARGE BAG
                                                 ADJ INDEX
  LARGE BAG | ONE SHOT
                                                 DELAY TMR
     I:O
                    ВЗ
                                          + MOV - - - - +
            - - - [OSR]
                                       +-+ MOVE
                    102
                                          I SOURCE
                                          DEST T4:0.PRE
                                                ADJ BAG
                                                INDEX TMR
                                          +MOV
                                         -+MOVE
                                           SOURCE
                                                        63 (
                                           DEST T4:1.PRE I
                                                        25!
```

FIG. 16C

```
RUNGS 2:6 THRU 2:9-INDEX DELAY AND BAG INDEX TIMER ADJUSTMENT CONTROLS.
  RUNG 2:9
   ROTARY SW | MED.BAG
                                                   ADJ INDEX
   MED. BAG | ONE SHOT
                                                   DELAY TMR
      1:0
                     B3
                                           + MOV - - - - -
   - - -] [ - -
           --- [OSR] -
                                           + MOVE
                     103
                                            1 SOURCE
                                                           201 1
                                            · DEST
                                                     T4:0.PRE
                                                  ADJ BAG
                                                  INDEX TMR
                                           + MOV - - - - -
                                        +-+ MOVE
                                            SOURCE
                                             DEST
                                                    T4:1.PRE :
RUNGS 2:10 THRU 2:12-LONG/SHORT AIR BLAST TIME CONTROLS.
RUNG 2:10
  ROTARY SW
               AIR BLAST | SM/MED BAG
                                                  SMALL/MED.
  SMALL BAG
               SELECT SW | ONE SHOT
                                                  BLAST TIME
   1:0
                 1:0
                       B3
                                           + MOV - - - - -
   - ] [--+-+-]/[ - ---[OSR] - 8 | 1 | 104
                                         - + MOVE
                                           I SOURCE
                                                    T4:2.PRE
.
I ROTARY SWI ! AIR BLAST SM/MED BAG
MED.BAG I SELECT SW ONE SHOT
                                                 SMALL/MED.
                                                 BLAST TIME
                                           + MOV - - - - -
   -] [--+-+- ] [----- [OSR]--
                                          + MOVE
                   12
                              105
                                           I SOURCE 33 ,
                                           I DEST
                                                    T4:2,PRE |
                                                          20 ;
```

```
RUNGS 2:11
  ROTARY SW AIR BLAST LARGE BAG LARGE BAG SELECT SW ONE SHOT I:0 I:0 B3
                                          LARGE BAG
BLAST TIME
                   + MOVE + 12 106 | SOURCE 33 |
                                          LARGE BAG
BLAST TIME
                   AIR BLAST LARGE BAG
                 ! SELECT SW ONE SHOT
                                          + MOV - - - - - + 1
                                         - + MOVE +-+ |
| SOURCE 50 |
                                    107
                                          RUNG 2:12
  ROTARY SW AIR BLAST XL BAG
XL BAG SELECT SW ONE SHOT
1:0 B3
 ROTARY SW
                                         XL BAG
BLAST TIME
                                          + MOV - - - - +
                   --]/[----[OSR] ---+ MOVE +-+-!
12 108 | SOURCE 50 | | |
| DEST T4:4.PRE | | |
                                         AIR BLAST XL BAG
                   SELECTISM ONE SHOT
                    i:0 B3
                                          + MOV - - - - +
                   --] [---- [OSR] ---
12 109
                                          + MOVE +-+ I
I SOURCE 75 I
                                          DEST T4:4.PRE
RUNGS 2:13 AND 2:14 - AIR BLAST SOLENOID CONTROLS.
RUNG 2:13
  SMALL/MED.
                                                 LOW AIR
  BLAST TMR I
                                                 BLAST SOL.
  T4:2
                                                 O:0
                                          ----()---
```

```
RUNGS 2:14
  LARGE BAG
                                          HIGH AIR
  BLAST TMR
                                          BLAST SOL.
   T4:3
                                           O:0
                                            -()-
XL BAG
BLAST TMR
  T4:4
 --][--+
    דו ב
RUNGS 2:15 THRU 2:22 - DC MOTOR SPEED CONTROLS.
RUNG 2:15
 FULL/JOG BAG INDEX PULLED GAP
                                          INDEXING
 SPEED TIMER SPEED
                                          SPEED
  O:0
        T4:1 O:0
                                          0:0
RUNG 2:16
   JOG PB'S
                                         FULL/JOG
                                         SPEED
     1:0
                                          O:0
                                           - ( ) –
 I ROTARY SW
CONTINUOUS
    1:0
  +--][---+
RUNG 2:17
   ROTARY SW INDEXING | FULL/JOG | GAP TIMER |
                                       PULLED GAP
    SPEED
                                        O:0
            -]/[----]/[----]
TT
                                         - - ( ) - - -
                                              10
  I ROTARY SW :
   MED. BAG
    1:0
  □ ROTARY SW I
  I LARGE BAG I
  1 0:1
 +--][--+
  I ROTARY SW I
  I XL BAG I
  ! 1:0
 +--][--+
                   FIG.16F
```

Į

```
RUNGS 2:18
 ROTARY SW | SMALL BAG
SMALL BAG | ONE SHOT
                                                GAP TIMER
                                          +MOV - - - +
                                          8 110
RUNG 2:19
 ROTARY SW | MED.BAG
                                               GAP TIMER
  MED.BAG | ONE SHOT
  I:O
            B3
                                          +MOV - - - +
                                          +MOVE +-
I SOURCE 63 |
DEST T4:5.PRE |
50 |
   --][----(OSR] --
7 111
RUNG 2:20
| ROTARY SW | LARGE BAG
                                               GAP TIMER
  LARGE BAG | ONE SHOT
                                          +MOV - - - +
+MOVE +-
! SOURCE 75 :
! DEST T4:5.PRE !
  1:0 B3
--][----[OSR] -
6 112
RUNG 2:21
| ROTARY SW | XL BAG
                                               GAP TIMER
  XL BAG ONE SHOT 1:0 B3
                                          + MOV - - - - +

+ MOVE +-

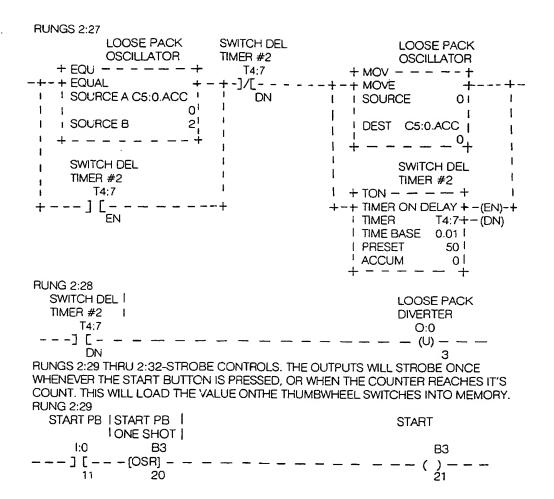
! SOURCE 100!

! DEST T4:5.PRE I

! 50!
  --][---- [OSR] -
5 113
RUNG 2:22
                                          GAP TIMER
+TON +
 COUNTER
     C5:1
                                          +TIMER ON DELAY +(EN)-
  + - -][-
                                          GAP TIMER
  1 T4:5
  +--][--+
```

FIG. 16G

```
RUNGS 2:23 THRU 2:28 - OPTIONAL LOOSE PACK CONTROLS.
 RUNG 2:23
   ROTARY SW
               COUNTER
                                             LOOSE PACK
   CONTINUOUS
                                             OSCILLATOR
                                       +CTU - - - +
       1:0
                    C5:1
                    ][-
    --][--
                                       + COUNT UP
                                                   C5:0+-(DN)
                     ĎΝ
                                       COUNTER
                                        PRESET
                                                   2 |
                                                     0 i
                                       ACCUM
 RUNG 2:24
     SWITCHING
                    SWITCH DEL
                                             SWITCH DEL
                    TIMER #1
                                             TIMER #1
           ВЗ
                       T4:6
                                       + TON
                                       + TIMER ON DELAY + - (EN)-
     --] [--
                                                   T4:6+-(DN)
                         ĎΝ
                                        TIMER
           114
                                        TIME BASE
                                                   0.01
                                        PRESET
                                                    50
                                        ACCUM
   I SWITCH DEL
      TIMER #1
 RUNG 2:25
       LOOSE PACK
                    SWITCH BIT
                                             SWITCHING
       OSCILLATOR
                    ONE SHOT
+EQU - - - - -
                        B3
- + EQUAL
                      -[OSR] -
                                                      ) —
 I SOURCE A C5:0.ACC
                         115
                 01
 SOURCE B
 RUNG 2:26
                                                  LOOSE PACK
SWITCH DEL
                                                  DIVERTER
   TIMER #1
                                                    O:0
       T4:6
    -][-
                                                    - (L)
        ĎΝ
```



```
RUNG 2:30
    START
                                      1'S COUNT
                                      TIMER
                                 +TON - - - +
                               +-+TIMER ON DELAY+ - (EN)-+-I
                               +-+TIMER T4:8+ - (DN)
        21
                               I ITIME BASE 0.01 I
                                 PRESET 10!
                                 ACCUM
                                            o¦
                                 +---
   COUNTER
                                  1'S COUNT
   C5:1 |
---] [ ---+
                                  O:0
    1'S COUNT
    TIMER
   T4:8
  ---][---+
RUNG 2:31
   1'S COUNT
                                      10'S COUNT
    TIMER
                                     TIMER
    T4:8
                                + TON - - - - +
                              TIME BASE 0.01
                                PRESET 10
ACCUM 0
+---+
   10'S COUNT
   TIMER
                                 10'S COUNT
    T4:9
                                 O:0
RUNG 2:32
 10'S COUNT
                                     100'S
    TIMER
                                     COUNT TMR
   T4:9
                              +TON - - - - +
+ -+TIMER ON DELAY + - (EN)-+-
    --] [---+
     DN
                                PRESET 10
                                I ACCUM
   100'S
                                 100'S
   COUNT TMR
                                 COUNT
   T4:10
                                 0:0
                                 --( ) -
```

FIG. 16J

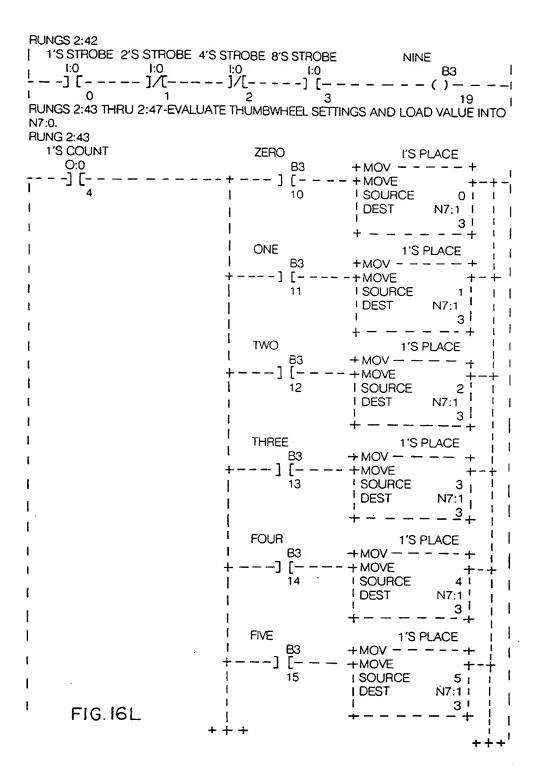
```
RUNGS 2:33 THRU 2:42-NUMBER CONTROLFOR ALL THUMBWHEEL SWITCHES.
RUNG 2:33
I 1'S STROBE. 2'S STROBE. 4'S STROBE 8'S STROBE

\begin{vmatrix}
1:0 & 1:0 & 1:0 & 1:0 \\
---]/[----]/[----]/[----]/[----]/[----]

RUNG 2:34
RUNG 2:35
1'S STROBE 2'S STROBE 4'S STROBE 8'S STROBE
 RUNG 2:36
  1'S STROBE 2'S STROBE 4'S STROBE 8'S STROBE
                                       THREE
RUNG 2:37

I 1'S STROBE 2'S STROBE 4'S STROBE 8'S STROBE

1:0 I:0 I:0
RUNG 2:37
RUNG 2:38
FIVE
RUNG 2:39
I 1'S STROBE 2'S STROBE 4'S STROBE 8'S STROBE SIX
RUNG 2:40
I 1'S STROBE 2'S STROBE 4'S STROBE 8'S STROBE
1 1'S STROBE. 2'S STROBE 4'S STROBE 8'S STROBE
                                       EIGHT
```



```
1'S PLACE
                              +MOV - - - +

+MOVE +

'SOURCE 7
                                B3
                                --][
17
                                EIGHT
                                          + MOV - - - - +
                                B3
                                 --] [-
18
                                           SOURCE 8 | DEST N7:1 | 3 |
                               ININE
                                           + MOV - - - -
                               I B3
                                         + MOV = - - - + 1

- + MOVE +-+

| SOURCE 9 |

| DEST N7:1 |

| 3 |
                               + - -] [·
                                  19
RUNG 2:44
  10'S COUNT ZERO
           O:0 B3
                      10'S PLACE
           I ONE
          | B3 + MOV - - - - + |
| +--] [- - + MOVE +-+
| I 11 | SOURCE 1 | |
| DEST N7:21 |
```

FIG. 16M

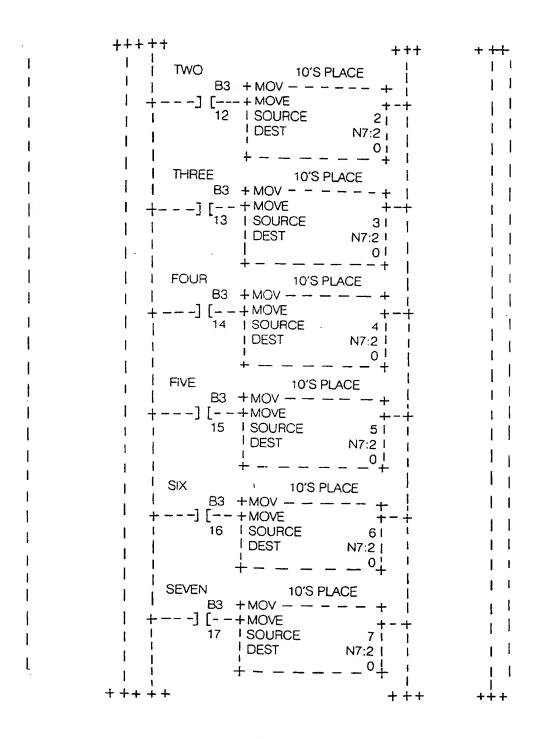
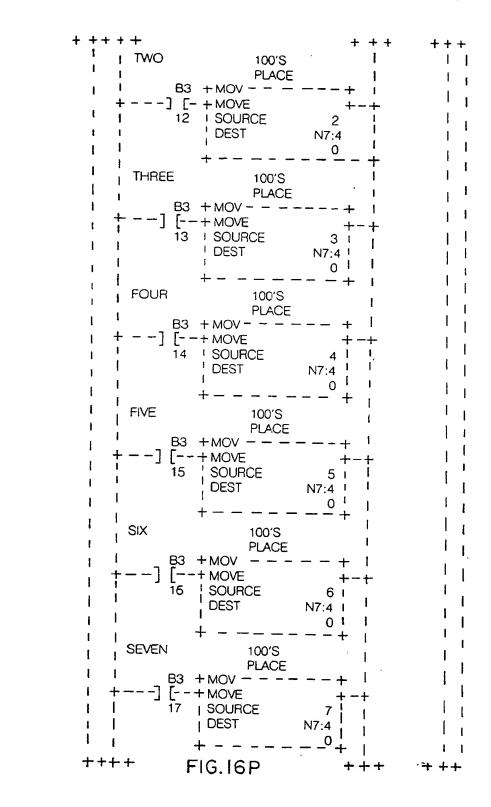


FIG. 16N

```
EIGHT 10'S PLACE
     10'S PLACE
     NINE
      B3 +MOV - -- - -
      +--][--+MOVE +
19 | SOURCE 9 |
                      N7:2
             I DEST
                                     MULTIPLY
                                     BY 10
                            +MUL -
                                       10 |
                            + MULTIPLY
                             I SOURCE A
                             I SOURCE B
                                         N7:2
                             DEST
RUNG 2:45
      ZERO
 100′S
                   100'S
 COUNT
                    PLACE
               +MOV - - -
   -] [-+-+-] [-- +MOVE
       l | 10
              SOURCE 01
               | DEST N7:4 | |
               100'S
         ONE
                   PLACE
          ВЗ
               +MOV - - -
          -] [-- + MOVE
                       1 | |
N7:4 | |
0 | |
               | SOURCE
               1 DEST
      +++++
```

FIG.160



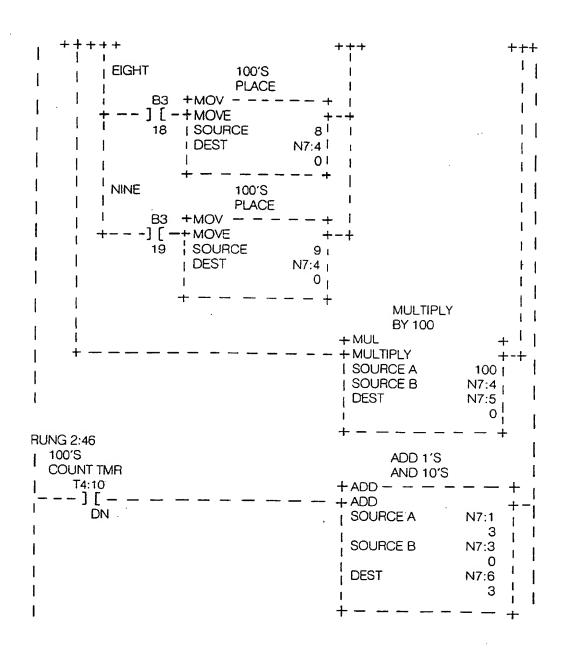
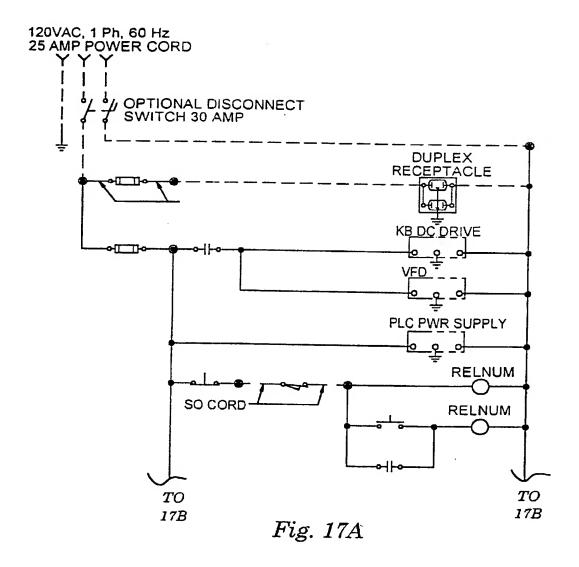


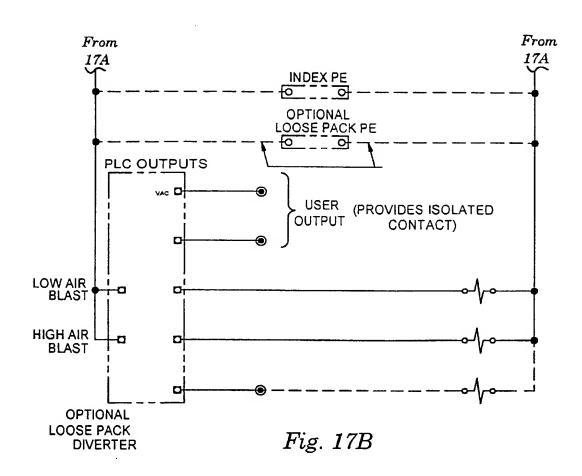
FIG. 16Q

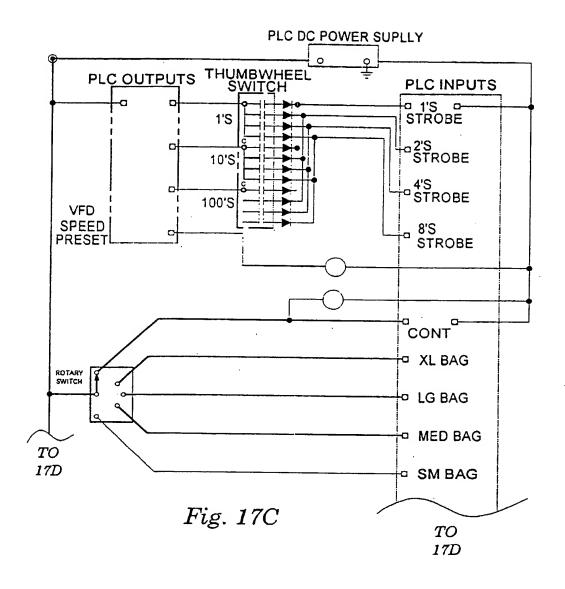
```
RUNG 2:47
  100'S
                                               ADD TOTAL
  COUNT TMR
                                               TO 100'S
    T4:10
                                         + ADD ·
    --][
                                        -+ ADD
        DN
                                         I SOURCE A
                                                       N7:6 I
                                                          3 і
                                         | SOURCE B
                                                       N7:4<sub>1</sub>
                                                          0
RUNGS 2:48 THRU 2:50 COUNTER CONTROLS. I
                                          DEST
                                                        N7:0
THE COUNTER IS RESET EVERY TIME IT
REACHES IT'S COUNT, AND RELOADS THE
                                         + MOV - - -
                                         +MOVE
THUMBWHEEL VALUE. THIS HAPPENS ALSO
WHEN THE START BUTTON IS PRESSED.
                                         I SOURCE
                                                      N7:0 I
RUNG 2:48
                                         DEST
                                                   C5:1.PRE |
       ADD TOTAL
       TO 100'S
                                          COUNT SET AT ZERO
  +EQ - - - -
- + EQUAL
  I SOURCE A
                N7:0 1
                  3 |
  I SOURCE B
                  0 1
  + - -
RUNG 2:49
    COUNTER
                                               COUNTER
         C5:1
                                                    C5:1
                                                 - (RES) -
           DN
  I START PB
       1:0
RUNG 2:50
           ROTARY SW COUNT SET CONV RUN COUNTER COUNTER
PHOTOCELL CONTINUOUS AT ZERO
                                           ONE SHOT
   1:0 I:0 B3
                                    B3
                                           B3 + CTU - - -
                            B3 B3 B3 + CTU - - - + ·
-]/[---] [--(OSR] - + COUNT UP +-(CU) -
                                           116 | COUNTER C5:1+-(DN)
                                     ōì
                             1
                                              PRESET
                                                            31
                                               ACCUM
I LOOSE PACKIROTARY SW
I PHOTOCELL | CONTINUOUS
I 1:0
+--]/[----] [--
     14
```

FIG.16R

RUNG 2:51-CONTROLS THE SELECTION OF VFD SP	'EED PRESETS. THE VFD WILL RUN
AT SPEED PRESET #1 WHEN OUTPUT 7 IS LOW. SP	EED PRESET #2 IS FOR SMALL
BAGS. IF CONTINUOUS BAGS IS SELECTED, THE VF	D WILL RUN AT A THIRD PRESET
SPEED.	
RUNG 2:51	
, ROTARY SW 1	SPEED
SMALL BAG	PRESETS
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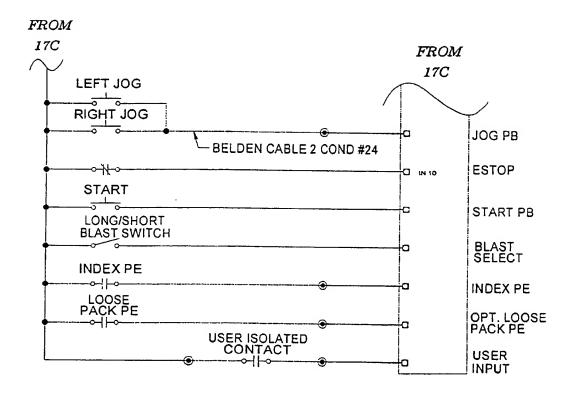
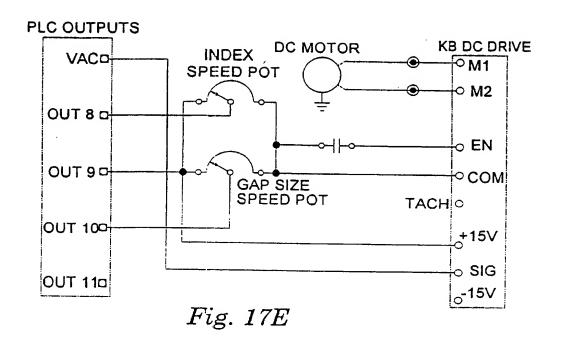
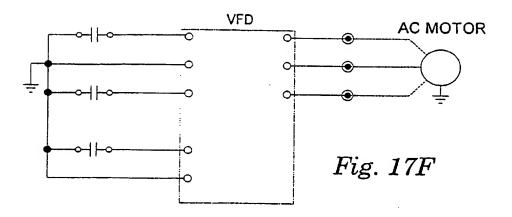
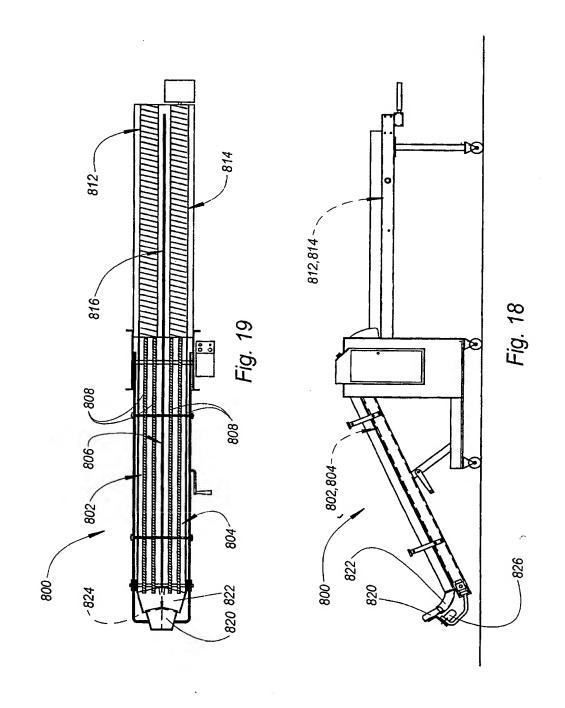
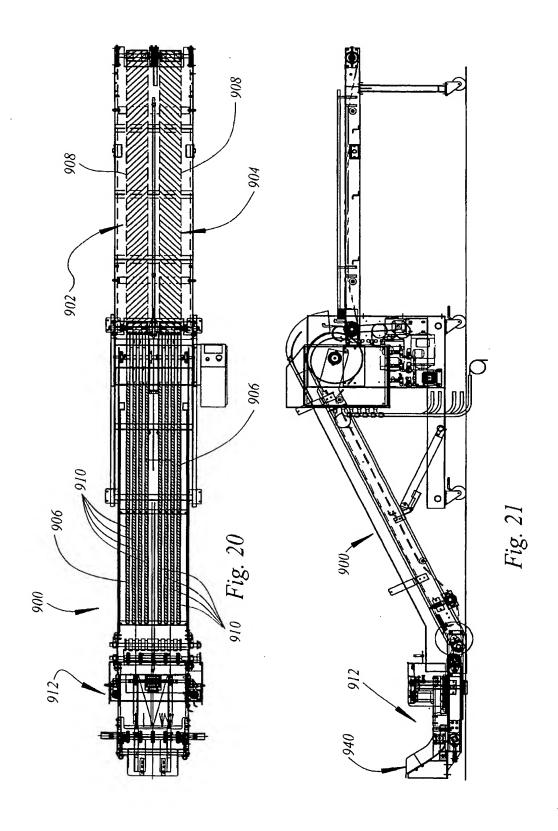


Fig. 17D

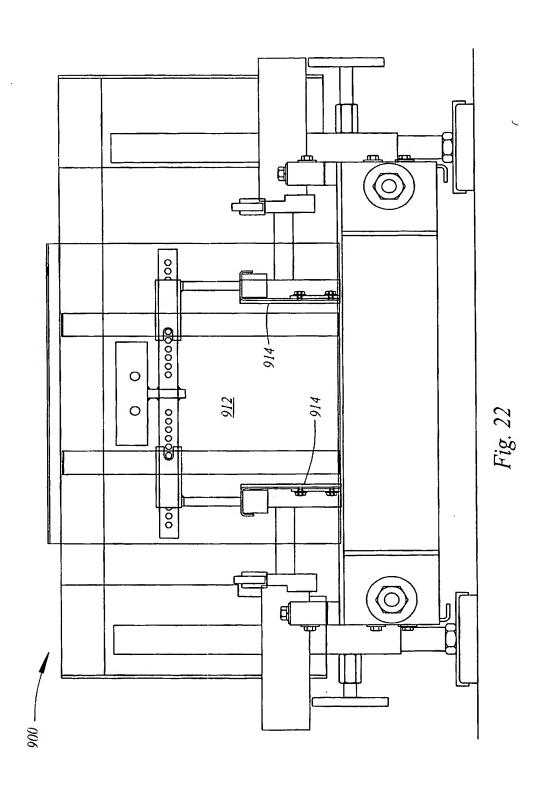


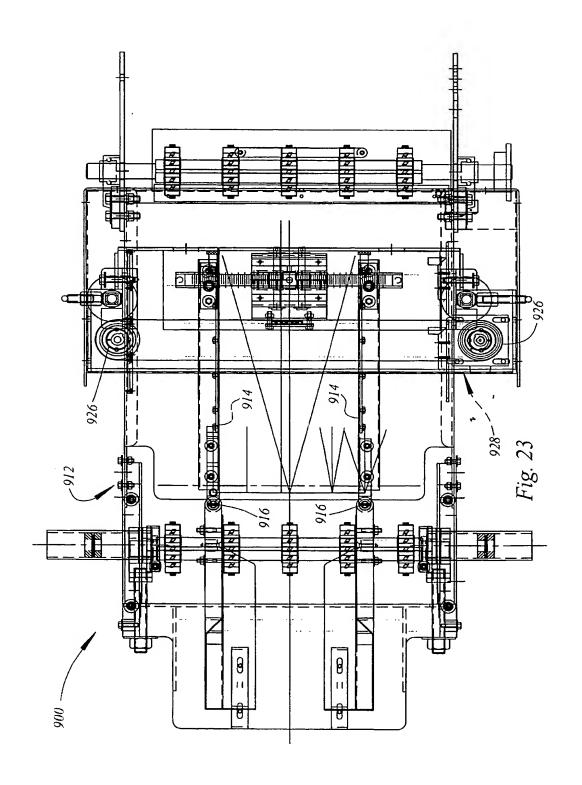


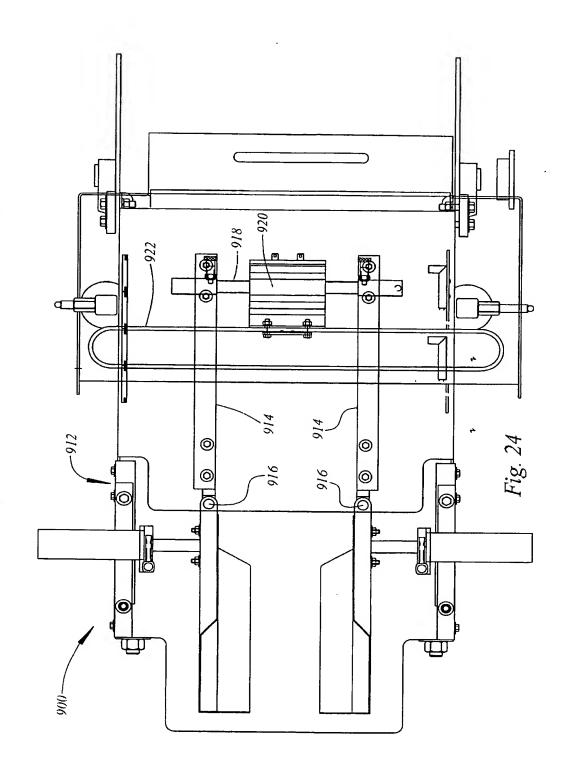


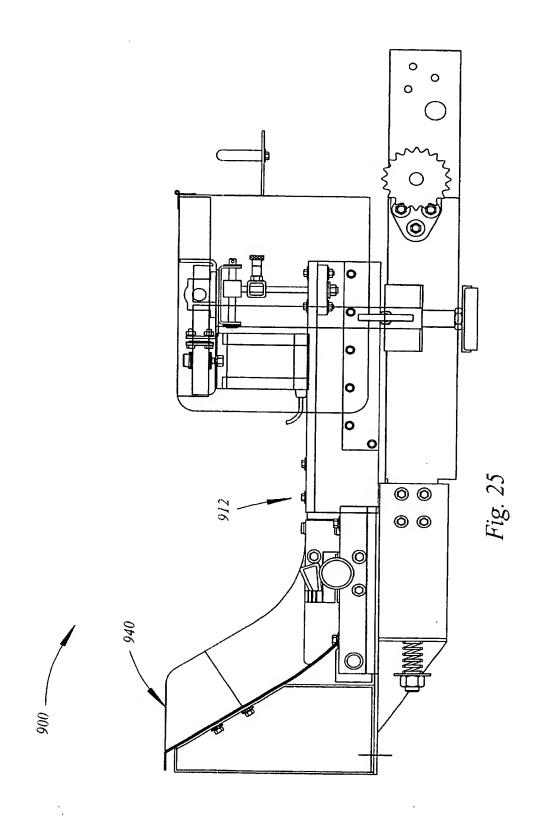


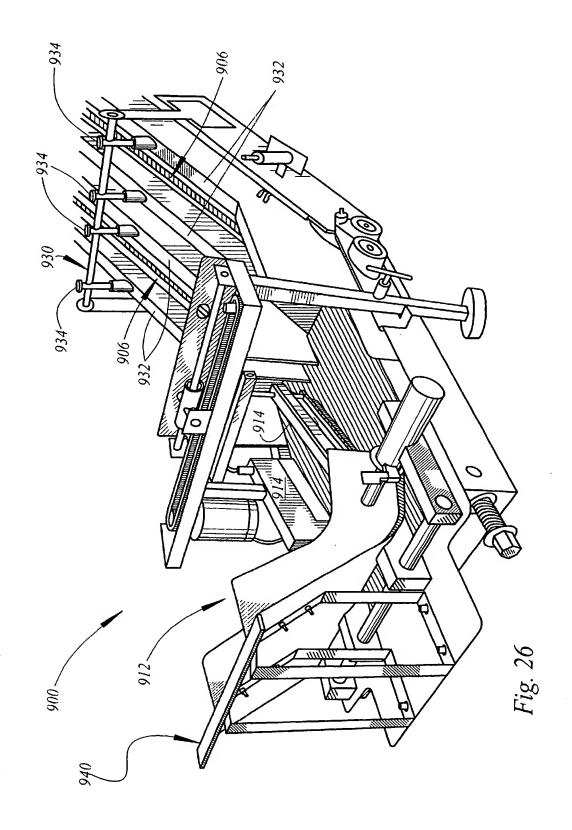
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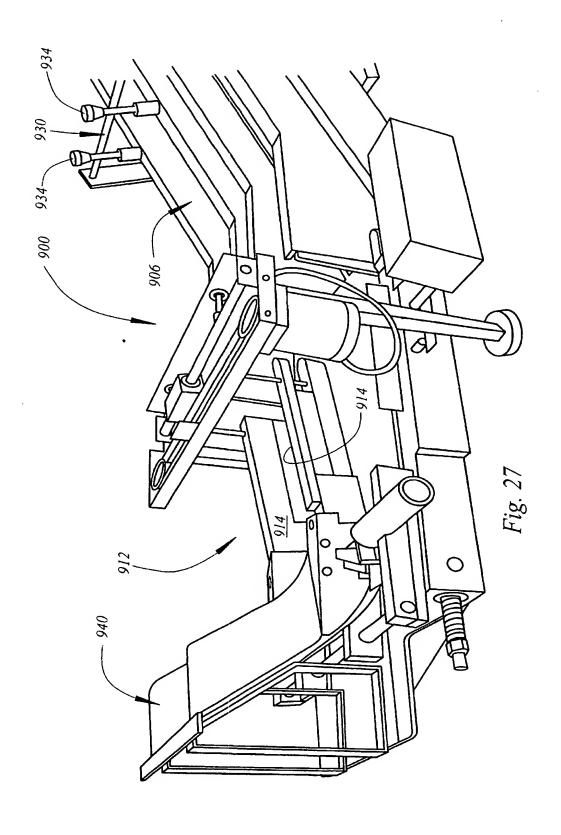




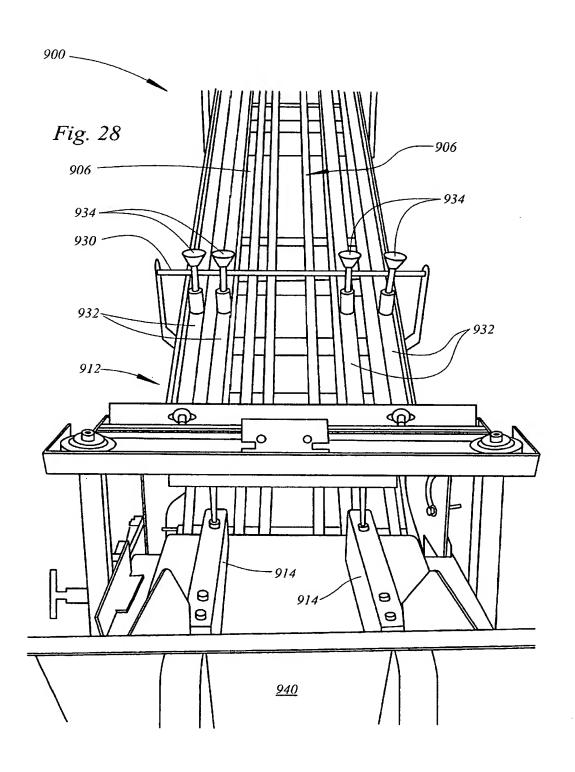


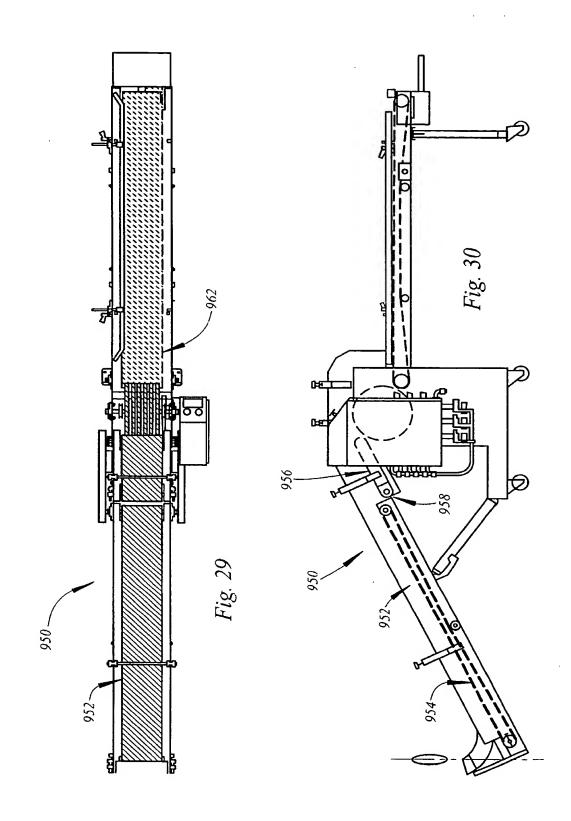






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